Release notes for ENDF/B Development e-039_Y_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:

    1. Mislabled emitted particle
       Reading ENDF file: ../e-039_Y_000.endf (Error # 0): ZAP messed up

       `WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0`

    2. FIXME: Generic fudge unimplemented message
       reaction label 1: e- + Y + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

       `WARNING: Checking not yet implemented for energyLoss type data`

    3. FIXME: Generic fudge unimplemented message
       reaction label 2: e- + Y [excitation] / Product: e- (Error # 0): Generic unimp (c)

       `WARNING: Checking not yet implemented for energyLoss type data`

- `fudge-4.0` Errors:

    1. Calculated and tabulated thresholds don't agree
       reaction label 0: e- + Y [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

       `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

    2. Calculated and tabulated thresholds don't agree
       reaction label 1: e- + Y + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

       `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

    3. Calculated and tabulated thresholds don't agree
       reaction label 2: e- + Y [excitation] / Cross section: (Error # 0): Threshold mismatch

       `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

    4. Calculated and tabulated thresholds don't agree
       reaction label 3: e- + e- + Y1s1/2 / Cross section: (Error # 0): Threshold mismatch

       `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1.7e4 eV!`

    5. Calculated and tabulated thresholds don't agree
       reaction label 4: e- + e- + Y2s1/2 / Cross section: (Error # 0): Threshold mismatch

       `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2354.9 eV!`

    6. Calculated and tabulated thresholds don't agree
       reaction label 5: e- + e- + Y2p1/2 / Cross section: (Error # 0): Threshold mismatch

       `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2159.7 eV!`

    7. Calculated and tabulated thresholds don't agree
       reaction label 6: e- + e- + Y2p3/2 / Cross section: (Error # 0): Threshold mismatch

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```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2081.5 eV!
```

8. Calculated and tabulated thresholds don't agree
reaction label 7: e- + e- + Y3s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 385.79 eV!
```

9. Calculated and tabulated thresholds don't agree
reaction label 8: e- + e- + Y3p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 312.26 eV!
```

10. Calculated and tabulated thresholds don't agree
reaction label 9: e- + e- + Y3p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 299.92 eV!
```

11. Calculated and tabulated thresholds don't agree
reaction label 10: e- + e- + Y3d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 168.74 eV!
```

12. Calculated and tabulated thresholds don't agree
reaction label 11: e- + e- + Y3d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 166.51 eV!
```

13. Calculated and tabulated thresholds don't agree
reaction label 12: e- + e- + Y4s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53.35 eV!
```

14. Calculated and tabulated thresholds don't agree
reaction label 13: e- + e- + Y4p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.71 eV!
```

15. Calculated and tabulated thresholds don't agree
reaction label 14: e- + e- + Y4p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.14 eV!
```

16. Calculated and tabulated thresholds don't agree
reaction label 15: e- + e- + Y4d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.24 eV!
```

17. Calculated and tabulated thresholds don't agree
reaction label 16: e- + e- + Y4d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.13 eV!
```

18. Calculated and tabulated thresholds don't agree
reaction label 17: e- + e- + Y5s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.68 eV!
```

- xsectplotter   Warnings:

  1. Mislabled emitted particle
     Error: ZAP messed up

     stderr while processing crossSection

          WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
     ... [2 more lines]